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# The Economics of Exporting North Dakota Beef to Asian Pacific Markets

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Cattle are an important source of income to North Dakota agricultural producers, ranking second only to wheat in generation of cash receipts from farm marketings. Cash receipts from cattle accounted for 18 percent, or $549 million in 1991, of total crop and livestock producers' cash receipts. On January 1, 1993, the state had 1,800,000 head of cattle on 14,500 farms. Income from cattle exceeds income from crops in counties in the West Central, South Central, and Southwest districts in North Dakota.

Rural economic development has emerged as a high priority public policy issue in North Dakota. Policymakers have sought to increase value-added livestock enterprises in the state as a way to increase economic activity. Livestock production has the highest multiplier effect of any sector in the North Dakota economy, generating $4.49 in gross business volume for each dollar of sales in the livestock sector.

North Dakota feedlots could develop niche markets for beef to enhance revenue from cattle feeding. The recent liberalization of Japanese import restrictions on beef products has created a desire for North Dakota cattle feedlot operators to produce animals that would meet the specifications of the Japanese beef market.

Since per capita consumption of beef is increasing in Japan and other Asian Pacific countries, a potential market for North Dakota grown beef exists. Instead of shipping feed and feeder cattle out of state, increased economic activity could be generated by feeding cattle for the export market. A specialty beef slaughter plant to process beef to meet the specification of the export markets would create additional jobs and generate additional economic activity if enough cattle were ultimately fed for the export market. This report is a summary of *The Economics of Exporting North Dakota Beef to Pacific Rim Markets*, (Stearns et al. 1993).

## Market Potential

Japan is one of the largest foreign markets for U.S. agricultural products and the largest export market for U.S. beef producers. U.S. negotiations with Japanese officials have reduced trade barriers for U.S. agricultural products. The Beef Market Access Agreement (BMAA), approved in 1988, turned quotas restricting beef imports into tariffs that were systematically lowered over the next five years. Liberalization of the Japanese beef market in April 1991 was expected to increase U.S. beef exports to Japan.

Taiwan is also an important and fast-growing market for agricultural goods. It is one of the world's highest ranking net import markets for agricultural products and was the sixth most important U.S. overseas farm product market in 1992. Opportunities for meat exporters stem from consumer's changing tastes and demand for high-quality food.

South Korea is the world's sixth largest net import market for agricultural products and fourth-largest export destination for U.S. agricultural goods. Koreans prefer beef to other meats and many households view beef as a health food. A joint study of the Korean beef market by major beef-exporting nations estimated that beef imports in Korea could

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reach 400,000 tons by early in the next decade, making the Korean market the rough equivalent of the Japanese market today.

China, with a population of 1.17 billion and a real per-capita income growth rate averaging 6 percent since the late 1970s, could have a major impact on global markets. A net population increase of 13.5 million in 1992 alone indicate the market's size. Future prospects in China for beef imports will advance with China's entry into the General Agreement on Tariffs and Trade.

Hong Kong is Asia's second largest agricultural importer and the fourth largest U.S. market in the region mainly because it serves as a transshipment center for the Asian Pacific. It has grown substantially as a market for U.S. farm products during the last two decades. The U.S. share of Hong Kong's beef imports has grown since the mid 1980s and was 11.4 percent in 1991. U.S. beef is mostly restricted to high-quality cuts for the hotel and restaurant trade, because it is generally higher-priced than beef from other sources.

Table 1. Comparison of Estimated North Dakota Cattle Feeding Costs With Estimated Costs of Feeding Cattle for the Japanese Market, 1993 (Hypothetical Data).

| | Beef fed for: | | |
|---|---|---|---|
| Feedlot Expenses | U.S. Market | Japanese Market | |
| Feeder calf | $ 534.00 | $ 534.00 | 562 lbs. @$95.00/cwt |
| Trucking | 9.06 | 9.06 | |
| Veterinary costs | 11.50 | 11.50 | |
| Feed costs[1] | 165.39 | 246.16 | |
| Operating interest | 34.72 | 52.65 | 8 % interest on cost of calf, trucking in and out, veterinary costs, and 1/2 of feed costs. |
| Death loss | 5.34 | 5.34 | 1 % of cost of calf |
| Yardage cost | 52.14 | 71.10 | $0.24 per day |
| Total costs | $ 812.14 | $ 929.81 | |
| Days on feed | 220 | 300 | |
| Starting weight (lbs) | 562 | 562 | |
| Finished weight (lbs) | 1,232 | 1,464 | |
| Gain (3.01 lbs/day) | | | |
| Cost/lb of gain | $ 0.4151 | $ 0.4447 | |
| Breakeven price | $65.92/cwt | $63.51/cwt | |

[1]Feed costs: 1992 Average feed prices.
(North Dakota Agricultural Statistics Service, 1993)

| | | | |
|---|---|---|---|
| Corn | $1.90/bu | Barley | $1.75/bu |
| Alfalfa | $56.00/ton | Straw | $20.00/ton |
| Min. supp. | $0.05/lb | | |

## Feeding for Export

Feeding cattle for export to Asian Pacific countries requires some special considerations. These include expenses for an extended feeding period, packaging, grading and inspection, shipping, insurance, and increased paperwork. Cattle should be fed to higher weights, 1400 to 1600 lbs, which increases time on feed (Table 1). Shipping charges are greater for meat shipped to Asian Pacific countries. Chilled beef shipped to Japan by air-freight costs approximately $1.00/lb, while containers of frozen beef trucked to Seattle and shipped to Taiwan cost approximately $0.22/lb for an 11-metric-ton container. Personal visits to Asian Pacific meat buyers may also be necessary before shipping to these markets.

A producer will incur additional expenses when shipping to international markets compared to normal slaughter and shipping costs (Table 2). USDA meat inspection by the Food Safety and Inspection Service (FSIS), is mandatory for meat sold in domestic and export markets. USDA meat inspectors are located at all meat plants operating under federal inspection (located in approximately 24 cities across North Dakota). USDA beef grading performed by the Agricultural Marketing Service (AMS) is optional, but highly recommended for the export market. USDA graded beef is assessed a lower tariff than non-graded beef in Japan, and top-quality grades receive higher prices.

Table 2. Summary of Expenses for Shipping Beef to Japan and Taiwan, 1993

| Category | Range of Costs |
|---|---|
| Slaughtering | $ 20 - 40/head, depending on offal arrangements. |
| Grading | $ 35/hour plus $ .28 per mile. About $ .01/lb (carcass wgt). |
| Processing and Packaging | $ .14 - .23/lb, $ .16 - .17/lb common (carcass wgt). |
| Insurance | 1 percent of the value of the meat. |
| Shipping | Air freight to Japan - $ 1.00/lb Trucking to Seattle; boat to Taiwan - $ .22/lb for 11-mt-container. |

Source: Tom Bresnahan - Sinners Bros. and Bresnahan, Casselton, ND.

It should be emphasized that marketing beef to an Asian Pacific buyer differs from marketing beef to a U.S. customer. Personal selling, at least initially, is essential and likely would involve a visit to the specific customer. Face-to-face interaction is necessary, and several meetings and test shipments may be necessary before an agreement is reached. Hiring professional export market consultants may be advised, particularly if the beef producer has limited knowledge of Asian Pacific markets, customs, and product characteristics.

## Fact-Finding Trip to Japan

In December, 1991, Dr. Martin J. Marchello, NDSU, Animal and Range Sciences and Bob Sinner, Sinner Bros. & Bresnahan, traveled to Japan and Taiwan to make direct contact with potential customers as part of a project to export North Dakota beef to Asian Pacific countries. In preparation for this trip, Dr. Marchello and Mr. Sinner studied Japanese business culture to gain insights into the proper approach to Japanese businesses and to better understand and operate within their culture. They learned that business contacts are best when made through a network of contacts that had been established earlier. A "cold" call is not appropriate in Japan. During discussions with a meat products distribution company in Japan, they were able to reassure this company that North Dakota beef producers could meet box size specifications, shipping requirements, quality controlled workmanship and deadlines. Following this trip, it was determined that there was potential for shipping beef to Japan. Steers were fed for the Japanese market, slaughtered, and shipped to Japan to test the market.

## North Dakota Steer Feeding, Slaughter, and Beef Exporting Experiment

In the spring of 1993, NDSU completed a project that was designed to assist North Dakota beef producers in developing niche markets for beef in Asian countries. This project included slaughtering 15 heavyweight steers at the NDSU Meats Laboratory over a period of several months and shipping selected cuts to Japanese and Taiwanese markets. Both liveweight and dressed weight data were collected on each steer to determine yields of carcasses and individual cuts from steers fed to heavier slaughter weights than current industry standards.

Average carcass weights of IMPS cuts, trim, and waste for the steers slaughtered for the Asian Pacific markets were collected. The rib cuts for 15 steers averaged 9.1 percent of carcass weight; chuck, 27.5; round, 22.0; and loin, 14.9; compared with current industry averages of 9.0, 29.0, 22.0, and 16.0 percent. Percent yields for different cuts of meat from cattle finished to higher weights in this study were comparable to cattle marketed at lighter market weights (1100 to 1200 lbs.). The

shipments of beef cuts sent to Japan and Taiwan were well accepted in both countries. However, Taiwan seemed to be the most cooperative market in which to operate and was considered to hold the most potential of the two countries.

Meat wholesalers in Asian Pacific countries may purchase only selected IMPS cuts of meat. When a beef producer enters the meat export business, they should realize that only certain cuts can be exported for a premium. A local market must be found to market trim and remaining cuts of meat.

A 25-minute VHS tape, *International Marketing of North Dakota Beef,* has been produced by Dr. Martin Marchello at NDSU. It provides information on North Dakota cattle production, slaughtering, cutting, packaging, and logistics necessary to market beef to Asian Pacific countries. Contact Dr. Martin Marchello, Department of Animal and Range Sciences, NDSU (701) 237-7641.

The Asian Pacific markets for beef will expand in future years and offer a potential niche market for cattle fed and slaughtered in North Dakota. However, the market is not easy to penetrate. A great deal of time is necessary to identify potential buyers and the specialized products that they require. Cattle must be fed specifically to meet Asian Pacific market specifications, and a domestic market must be maintained for the beef cuts that are not used in the export market.

## References


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